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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,852	11/07/2001	Shigeki Mori	712-032	1854

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EXAMINER
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PADGETT, MARIANNE L

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/019,852	<b>Applicant(s)</b> MORI ET AL.	
	<b>Examiner</b> Marianne L. Padgett	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4,5,8-11,20-23 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,8-11,20-23 is/are allowed.
- 6) ☒ Claim(s) 30-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Applicants amendments to the specification on 3/21/2006 have reinstated language from the original specification and remove the objected to new matter therefrom & the enablement problems that derived therefrom. Correction of claim dependence in 22 has removed the objection thereto of section 9 of the 10/3/2005 action, as have the amendments of claim 11. The ambiguity discussed in the 112, now second paragraph rejection of section 14 of the 10/3/2005 rejection has been removed by the new product claims reference to being with respect to "over a single product". Applicants' amendments to the apparatus and method claims have removed the prior art rejections based on Shimamura (JP 10-226884), as well as the obviousness double patenting (ODP) rejection based thereon, which would be moot in any event, as SN 10/452,208 has been abandoned with no succeeding continuing cases.

As claims 19, 27 & 29 have been canceled, and not replaced by adequately claim the ODP rejection with respect to patent number 6,805,931 B2 is overcome

2. Claim 32 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The endpoints in the ranges for thickness and density in new claim 32 are the values in the examples of table 6 for two different powers of high-frequency applied only to the bottom electrode, these are only examples, with no basis for claiming a range between them, where any thickness in the thickness range may up be applied to any of the densities in the density range and vice versa, especially since they are not produced by plasmas of the same parameters. Similarly, the values for the hydrogen content in table 7, which are derived from two different examples of 800 W and 1200 W, which are different tests than those of table 6, where clearly the lowest value at 800 W & the highest value at 1200 W have no basis for being claimed as the endpoints of a range the covers all values in between, and may be in any

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combination of the claimed thicknesses and densities, this claim contains considerable New Matter, as is broader than the scope of the enabling disclosure that can be derived from tables 7 & 6.

3. Claim 30-31 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 30 is equivalent to canceled claim 24, except that the atomic percent hydrogen content is no longer claimed, and 31 is essentially the same as canceled claim 27. All applicant has removed the problem of the hydrogen content which had new matter, they have not removed the problem of the new matter that is encompassed by claiming the average with standard deviations, as discussed in section 4, last paragraph thereof in the action mailed 10/3/2005. Canceling the previous claims and rewriting new claims with the same problem does not remove this problem.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claim 33 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shimamura (6294226 B1), discussed previously in sections 6-7 & 12 of papers mailed 11/10/2003 & 3/30/2005, respectively.

While Shimamura does not apply the high-frequency two different sections of their multipart electrode via the same means as the present method claims, the apparatus/process is capable of delivering different more individualized/localized and energization to the segments of the plasma electrode, hence is capable of producing like DLC depositions, hence know what necessary or discernible difference between the deposits on bottles via a share mayor is apparatus in the deposits on bottles by the present methods is considered to be necessitated by these claims, and since analogous energization can be directed to like areas like coated products can be expected to be produced. Alternately reasons for obviousness in variations of electrode structure as previously discussed with respect to Shimamura & number of segments of electrodes employed may be relevant to this rejection, where again the separate application of high-frequency to the different electrodes is taught by Shimamura presents the capability of applying like energization to different segments of the plasma regardless of the number of electrode segments, as how one energizes to equivalent parameters does not affect the plasma condition per se such that one would expect like depositions regardless of whether it's direct application of the high-frequency to each electrode, or capacitively coupling to produce the same parameters.

5. As the amendments appear to have removed all previous rejections with respect to the process & apparatus claims 4-5, 8-11 & 20-23, these claims appear to be allowable at this time.

6. Applicant's arguments filed 3/21/2006 and discussed above have been fully considered but they are not persuasive.

Other art of interest but which is not prior art is inclusive of Yamasaki et al. (2006/0051539 A1) & Hama et al. (2005/0266191 A1), which concern coating processes of interest for DLC on bottles/containers.

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7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software - 5/30/2006



MARIANNE PADGETT  
PRIMARY EXAMINER